

### 102(b) Rejections

Claims 1 – 9, 19, 20 and 22 - 29 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wallace, et al. ("Wallace;" US 5,689,151). Applicants have reviewed the cited reference and respectfully submit that the present invention as recited in Claims 1 – 9, 19, 20 and 22 - 29 is not anticipated or shown by Wallace.

Wallace does not teach, show or suggest "a barrier layer" as recited by independent Claims 1 and 19. Wallace's ITO layer 28 does not form a "layer." Wallace teaches that conductive regions 28 "...are spaced-apart to form parallel stripes..." (column 3, lines 36 – 37) and "are in the form of electrically isolated stripes forming parallel conductive bands..." (column 3 lines 45 – 46). Indeed, Wallace Figures 1, 2 and particularly 3C and 4C show that conductive regions 28 are not continuous. Figures 3C and 4C show process steps that intentionally remove conductive material in order to form regions 28 into separate, electrically isolated stripes. Consequently, regions 28 do not form a "layer disposed over" a substrate as recited in Claim 1, nor do regions 28 form a "layer over" a substrate as recited in Claim 19. Applicants respectfully further assert that regions 28 cannot provide a barrier function in areas where regions 28 are not present.

In addition, Wallace's layer 34 does not form a "barrier" to electrons. Wallace's teachings as to the thickness of layer 34 are limited to "thin" (column 3, line 40 and column 4, line 26) and "approximately fifty nanometers" (column 6, line 5 and column 7, line 26). Wallace does not teach, disclose or suggest that layer 34 should be sized so as to "prevent penetration by electrons." Further,

Argument when evidence is presented

Wallace does not teach, disclose or suggest that either a "thin" layer 34 or an "approximately fifty nanometers"-thick layer 34 is capable of preventing penetration by electrons. In addition, the exemplary thickness of a layer (100 nm) noted in the Office Action from the instant specification is 100% thicker than layer 34 of Wallace. Applicants respectfully assert that there is no evidence, presented in the Office Action, the present application nor the cited references, that layer 34 of Wallace prevents penetration by electrons. Consequently, Applicants respectfully assert that Wallace's layer 34 does not inherently prevent penetration by electrons, and that preventing penetration by electrons is not inherent to the prior art layer 34.

Therefore, since Wallace regions 28 are not a "layer," and Wallace layer 34 does not prevent penetration by electrons, Applicants respectfully assert that independent Claims 1 and 19 are not anticipated by Wallace, and therefore the rejection of these Claims under 35 U.S.C. § 102(b) is traversed.

Claims 2 – 9 are dependent on Claim 1, and Claims 20 and 22 – 29 are dependent on Claim 19. Applicants also respectfully submit that Claims 2 – 9, 20 and 22 - 29 traverse the Examiner's basis for rejection under 35 U.S.C. § 102(b) as these claims are dependent on allowable base claims.

Claims 10 – 14, 16 – 19, 21 – 25 and 27 – 29 are rejected under 35 U.S.C. § 102(b) as being anticipated by Banno, et al. ("Banno;" US 5,525,861). Applicants have reviewed the cited reference and respectfully submit that the present invention as recited in Claims 10 – 14, 16 – 19, 21 – 25 and 27 – 29 is not anticipated or shown by Banno.

Banno does not teach, disclose or suggest "a barrier layer" that "prevents electron bombardment" as recited by independent Claim 10. The Office Action in section 4 refers to a layer of gold described in Banno column 5, lines 36 – 41. Banno's layer of gold is further processed "by lithography having a lift-off process to form the electrodes 22 and 23" (column 5, lines 42 – 44). After this processing, the gold ceases to be a "layer" (see Banno Figure 2). Further, "electrons are emitted from the electron emitting zone 25 by the action of field electron emission upon application of a voltage across the electrodes 22 and 23" (column 5, lines 21 – 24). Applicants respectfully assert that a gold electrode, a portion of which emits electrons, does not form "a barrier layer" that "prevents electron bombardment" from the emitted electrons.

The Office Action in section 4 further refers to a layer of silica 500 nm thick described in Banno column 5, lines 36 – 41. Applicants understand the cited reference to refer to insulator 24, which is a portion of field emission device 2. Applicants further understand electrons to travel from field emission device 2 to fluorescent material 8 in Figure 1. Consequently, insulator material 24, formed upon substrate 1, is not in the path of the electrons, and does not form "a barrier layer" that "prevents electron bombardment" from the emitted electrons, as recited in Claim 10. For these reasons, Applicants respectfully submit that Claim 10 traverses the Examiner's basis for rejection under 35 U.S.C. § 102(b).

Claims 11 – 14 and 16 - 18 are dependent on Claim 10. Applicants also respectfully submit that Claims 11 – 14 and 16 - 18 traverse the basis for rejection under 35 U.S.C. § 102(b) as these claims are dependent on allowable base claims.

Banno does not teach, disclose or suggest "a barrier layer" that "prevents penetration by electrons directed toward said faceplate" as recited by independent Claim 19. As discussed above with respect to Claim 10, Banno does not teach, disclose or suggest "a barrier layer" that "prevents penetration by electrons directed toward said faceplate" as recited by independent Claim 19. The Office Action in section 4 refers to a layer of gold described in Banno column 5, lines 36 – 41. Banno's layer of gold is further processed "by lithography having a lift-off process to form the electrodes 22 and 23" (column 5, lines 42 – 44). After this processing, the gold ceases to be a "layer" (see Banno Figure 2). Further, "electrons are emitted from the electron emitting zone 25 by the action of field electron emission upon application of a voltage across the electrodes 22 and 23" (column 5, lines 21 – 24). Applicants respectfully assert that a gold electrode, a portion of which emits electrons, does not form "a barrier layer" that "prevents penetration by" the emitted electrons.

as per  
P11, 12, 13  
The Office Action in section 4 further refers to a layer of silica 500 nm thick described in Banno column 5, lines 36 – 41. Applicants understand the cited reference to refer to insulator 24, which is a portion of field emission device 2. Applicants further understand electrons to travel from field emission device 2 to fluorescent material 8 in Figure 1. Consequently, insulator material 24, formed upon substrate 1, is not in the path of the electrons, and does not form "a barrier layer" that "prevents penetration by electrons directed toward

said faceplate," as recited in Claim 19. Therefore, for these reasons, Applicants respectfully submit that Claim 19 traverses the basis for rejection under 35 U.S.C. § 102(b).

Claims 21 – 25 and 27 - 29 are dependent on Claim 19. Applicants also respectfully submit that Claims 21 – 25 and 27 - 29 traverse the basis for rejection under 35 U.S.C. § 102(b) as these claims are dependent on allowable base claims.

#### 103(a) Rejections

Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Banno. Applicants have reviewed the cited reference and respectfully submit that the present invention as recited in Claim 15 is not anticipated nor rendered obvious by Banno.

Claim 15 is dependent upon Claim 10. As described above, Applicants respectfully assert that Claim 10 is not shown or suggested by Banno, and accordingly Claim 10 is in condition for allowance. Therefore, Applicants respectfully submit that Claim 15 traverses the basis for rejection under 35 U.S.C. § 103(a) as this claim is dependent on an allowable base claim.

In addition, the Office Action in section 6 refers to a layer of silica (approximately 500 nm thick). Applicants understand the cited reference to refer to insulator 24 of Banno, which is a portion of field emission device 2. Applicants further understand electrons to travel from field emission device 2 to fluorescent material 8 in Figure 1. Consequently, insulator material 24, formed upon substrate 1, is not in the path of the electrons, and does not form

"a barrier layer" that "prevents electron bombardment" from the emitted electrons. In addition, Banno's layer of gold (approximately 300 nm thick) does not form a "layer." It is further processed "by lithography having a lift-off process to form the electrodes 22 and 23" (column 5, lines 42 – 44). After this processing, the gold ceases to be a "layer" (see Banno Figure 2). Further, "electrons are emitted from the electron emitting zone 25 by the action of field electron emission upon application of a voltage across the electrodes 22 and 23" (column 5, lines 21 – 24). Applicants respectfully assert that a gold electrode, a portion of which emits electrons, is neither a "layer" nor forms "a barrier" that "prevents electron bombardment" from the emitted electrons. Applicants respectfully submit that Claims 15 traverses the basis for rejection under 35 U.S.C. § 103(a) for these additional reasons.

Claims 30 – 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wallace in view of Okomoto et al. ("Okamoto;" US 5,543,685). Applicants respectfully note that Claims 36 – 38 were renumbered to be Claims 33 - 35 in the previous response ("Amendment A") filed on January 4, 2002, and understand the present rejection to apply to the original Claims 36 – 38, and consequently to renumbered Claims 33 – 35, as amended. Claims 30 – 32 are dependent on Claim 1, and renumbered claims 33 – 35 are dependent on Claim 19. Applicants have reviewed the cited references and respectfully submit that the present invention as recited in renumbered Claims 30 - 35 is not anticipated or shown by Wallace in view of Okomoto.

Claims 30 – 32 are dependent upon Claim 1. Claims 33 – 35 are dependent upon Claim 19.

As discussed above, Wallace does not show or suggest a "barrier layer" to "prevent penetration by electrons" as recited in Claims 1 and 19. Okamoto does not overcome the shortcomings of Wallace. Okamoto also does not show or suggest a "barrier layer" that "prevents penetration by electrons directed toward said faceplate." Therefore, the combination of Wallace and Okamoto does not show or suggest the present invention as recited in Claims 1 and 19. Accordingly, Claims 30 – 32, dependent on Claim 1, and Claims 33 – 35, dependent on Claim 19, are also not shown or suggested by Wallace and Okamoto, alone or in combination, and Applicants respectfully assert that these claims traverse the basis for rejection under 35 U.S.C. § 103(a) as these claims depend on allowable base claims.

In addition, Okamoto teaches color filters as "a strip-like configuration" on the anode (column 3, line 34). Okamoto does not teach, disclose or suggest that a color filter configuration may have any function other than filtering colors. More particularly, Okamoto does not teach, disclose or suggest that color filter material of any thickness may form a "barrier layer" against electrons. Applicants respectfully assert that, while it may be obvious to include color filters in a fluorescent display device based on Okamoto, it is not obvious to combine the function of filtering colors with another function, particularly that of forming a "barrier layer" against electrons. Wallace does not teach blocking electrons, nor combining color filters within other layers. Therefore, applicants respectfully assert that Wallace in view of Okamoto does not show or suggest disposing a color filter "layer" on a faceplate for the combined purposes of filtering colors and forming a "barrier layer" against electrons as recited in

Claims 30 – 35. For these additional reasons, Applicants respectfully assert that Claims 30 – 35 traverse the basis for rejection under 35 U.S.C. § 103(a)

### CONCLUSION

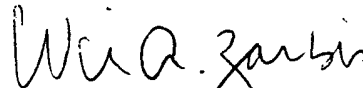
In light of the above remarks, Applicants respectfully request reconsideration of the rejected Claims.

Based on the arguments presented above, Applicants respectfully assert that Claims 1-35 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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